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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/558,386 04/25/00 MATTSON

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EXAMINER

GOINS, D

ART UNIT

PAPER NUMBER

2632

DATE MAILED: 02/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/558,386

Applicant(s)
Mattson et al.

Examiner
Davetta W. Goins

Group Art Unit
2632



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-24 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☒ Claim(s) 1-15 and 19-21 is/are allowed.

☒ Claim(s) 16, 18, and 22-24 is/are rejected.

☒ Claim(s) 17 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

men. July 28

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Allowable Subject Matter

1. Claims 1-15, 19-21 are allowed.
2. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

4. Claims 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Federspiel (US Pat. 5,464,369).

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In reference to claim 16, Federspiel discloses 1)the claimed method of sensing a base line concentration of CO₂ in an enclosure, which is met by sensor 22 configured to sense both the concentration of carbon dioxide in room 28 and the inlet mass concentration of carbon dioxide in room 28 (col. 10 lines 26-44), 2)the claimed method of sensing an increase in the concentration of CO₂ above the base line concentration, which is met by a CPU 38 comparing the value of the rate at which carbon dioxide is being generated within room 28 to a predetermined threshold value (col. 11 lines 5-20), and 3)the claimed method of generating an alarm in response to detecting CO₂ above the base line concentrating which is consistent with what would be produced by respiration of a person in the enclosure, which is met by an alarm 34 being activated once the CPU 38 has detected the level of carbon dioxide within room 28 being greater than the predetermined threshold value (col. 11 lines 5-20).

5. Claim 22 is rejected under 35 U.S.C. 102(e) as being anticipated by Ghitea, Jr.

In reference to claim 22, Ghitea discloses 1)the claimed sensing a base line concentration of CO₂ in the closed passenger compartment and sensing an increase in concentration of CO₂ above the base line concentration, which is met by CO₂ sensor 16 to detect when the CO₂ level in the vehicle reaches a predetermined level (col. 2 lines 13-21), and 2)the claimed alarm in response to detecting CO₂ above the base line concentration, which is met by the system can generate a warning message alerting the driver that the air is stale based either on the CO₂ level in the

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vehicle, or the length of time that the HVAC system remains in recirculation mode or both (col. 2 lines 13-21).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Federspiel in view of Ghitea, Jr. (US Pat. 5,775,406).

In reference to claim 18, although Federspiel does not specifically disclose the claimed steps of using a passenger compartment of a vehicle as the enclosure and automatically ventilating the compartment when the alarm is generate, he does disclose sensor 22 configured to sense both the concentration of carbon dioxide in room 28 and the inlet mass concentration of carbon dioxide in room 28 (col. 10 lines 26-44). Control unit 46 is a controller configured to control HVAC system 36 which may be configured to receive the signal indicative of the number of occupants in room 28, and to generate a control signal based on this number to cause HVAC system 36 to ventilate room 28 (col. 13 lines 18-45). Ghitea discloses a CO₂ sensor 16 to detect when the CO₂ level in the vehicle reaches a predefined level and keeps track of how long the HVAC system is in

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the recirculation mode (col. 2 lines 13-21). Since Federspiel discloses a system for detecting the CO₂ within a room and will automatically ventilate a room, it would have been obvious to one of ordinary skill in the art to incorporate the method of sensing CO₂ in a vehicle, as disclosed by Ghitea, with the system of Federspiel, to ensure that persons in a vehicle will have sufficient amount of air needed to prevent stale air build up and prevent the driver from becoming drowsy due to the lack of fresh air.

8. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ghitea in view of Federspiel.

In reference to claim 23, although Ghitea does not specifically disclose the claimed ventilating the compartment in response to the alarm, he does disclose an HVAC sensor which is used to monitor the circulation or air over a period of time within the vehicle (col. 2 lines 6-33). Federspiel discloses a control unit 46 is a controller configured to control HVAC system 36 which may be configured to receive the signal indicative of the number of occupants in room 28, and to generate a control signal based on this number to cause HVAC system 36 to ventilate room 28 (col. 13 lines 18-45). Since both Ghitea and Federspiel disclose systems for detecting the CO₂ an enclosed area, it would have been obvious to one of ordinary skill in the art to incorporate the method of sensing turning on the ventilating system, as disclosed by Federspiel, with the system of

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Ghitea, to ensure that persons in a vehicle will have sufficient amount of air needed to prevent stale air build up and prevent the driver from becoming drowsy due to the lack of fresh air.

In reference to claim 24, although Ghitea does not specifically disclose the claimed step of ventilating the compartment in response to the alarm and the detection of a predefined temperature in closed compartment, he does disclose an HVAC sensor which is used to monitor the circulation of air over a period of time within the vehicle (col. 2 lines 6-33). The CPU 50 computes a temperature compensation factor wherein the CPU calibrates the sensor by providing a control signal that adjusts the sensor through control signal path 72 (col. 5 lines 11-28). Federspiel discloses a control unit 46 is a controller configured to control HVAC system 36 which may be configured to receive the signal indicative of the number of occupants in room 28, and to generate a control signal based on this number to cause HVAC system 36 to ventilate room 28 (col. 13 lines 18-45). The Federspiel also discloses a means for varying the temperature within the room (col. 13 lines 40-63). Since both Ghitea and Federspiel disclose systems for detecting the CO₂ in an enclosed area, it would have been obvious to one of ordinary skill in the art to incorporate the method of sensing turning on the ventilating system, as disclosed by Federspiel, with the system of Ghitea, and operate the ventilating system upon the detection of temperature to ensure that persons in a vehicle will have sufficient amount of air needed to prevent stale air build up and prevent the driver from becoming drowsy due to the lack of fresh air.

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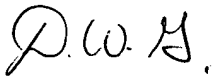
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Porter et al. (US Pat. 4,926,164) and Bingle et al. (US Pat. 6,086,131), which are references that deal with breath monitoring devices and/or trunk release mechanism.

Although not considered prior art because of the filing date, the applicant is advised to take a look at Miller et al. (US Pat. 6,130,614) and it's claims before submitting a response.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davetta W. Goins whose telephone number is (703)306-2761 and fax number is (703)308-9051.

If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor Jeff Hofsass can be reached at (703)305-4717.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703)305-8576.



D. W. Goins

January 25, 2001



EDWARD LEFKOWITZ
PRIMARY EXAMINER